



IFW

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Stephen J. Benkovic et al.

Serial No.: 10/817,560

Filed: April 2, 2004

Title: METHODS FOR NUCLEIC
ACID MANIPULATION

Group Art: 1645

Examiner: Not Yet Determined

Docket No.: 7418/91839

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below.

Patricia Poloway

PATRICIA POLOWAY

July 30, 2004

(Date)

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Attached Form PTO-1449 lists documents which may be considered to be material to the above-identified application by the Patent Examiner. Copies of the non-patent literature documents identified in the attached form are enclosed. Entry into the record is respectfully requested.

The Commissioner is hereby also authorized to charge any additional fees which may be required pursuant to 37 CFR 1.97(c)(2) and 37 CFR 1.17(p) in connection with filing this Statement as well as any other fees due under 37 CFR §§1.16-1.17, or credit any overpayment, to Deposit Account No. 23-0920. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise

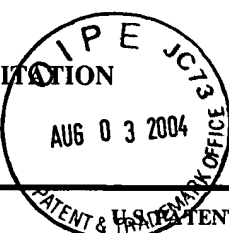
improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 23-0920. A duplicate copy of this sheet is enclosed.

Respectfully submitted

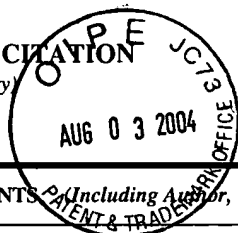
By Teresa D Tambolas
Teresa D. Tambolas
Reg. No. 47,126

WELSH, & KATZ, LTD.
120 South Riverside Plaza, 22nd Floor
Chicago, Illinois 60606-3912
(312) 655-1500

July 30, 2004

INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>				Docket Number (Optional) <div style="text-align: center; font-weight: bold;">7418/91839</div>		Application Number <div style="text-align: center; font-weight: bold;">10/817,560</div>	
				Applicant(s) <div style="text-align: center; font-weight: bold;">Benkovic, et al.</div>		Group Art Unit <div style="text-align: center; font-weight: bold;">1645</div>	
				Filing Date <div style="text-align: center; font-weight: bold;">April 2, 2004</div>			
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,945,339	8/31/99	Holloman, et al.	435	477	
		5,223,414	6/29/93	Zarling et al.	435/91.2		
		6,699,693	3/2/04	Marians et al.	435/91.2		
		5,668,004	9/16/97	O'Donnell, Michael E.	435/91.2		
		5,945,312	8/31/99	Goodman et al.	435/91.2		
U.S. PATENT APPLICATION PUBLICATIONS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
FOREIGN PATENT DOCUMENTS							
REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
		Cheng, et al. "Effective Amplification of Long Targets from Cloned Inserts and Human Genomic DNA," Proc. Natl. Acad. Sci. 91, 5695-5699 (1994)					
		Tindall, K.R., and Kunkel, T.A. "Fidelity of DNA Synthesis by the Thermus Aquaticus DNA Polymerase," Biochemistry 27, pp. 6008-6013 (1988)					
EXAMINER				DATE CONSIDERED			
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)



Docket Number (Optional) 7418/91839	Application Number 10/817,560
Applicant(s) Benkovic, et al.	
Filing Date April 2, 2004	Group Art Unit 1645

*EXAMINER INITIAL	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	Keohavong, P., and Thilly, W.G., "Fidelity of DNA Polymerases in DNA Amplification," Proc. Natl. Acad. Sci. USA 86(23), pp. 9253-9257 (1989)
	Ling, L. L. Keohavong, P., Dias, C., and Thilly, W.G., "Optimization of the Polymerase Chain Reaction with Regard to Fidelity: Modified T7, Taq, and Vent DNA Polymerases," PCR Methods and Applications, 1(1), pp.63-69 (1991)
	Cariello, N.F., Swenberg, J.A. and Skopek, T.R., "Fidelity of Thermococcus Litoralis, DNA Polymerase (Vent) in PCR Determined by Denaturing Gradient Gel Electrophoresis," Nucleic Acids Res. 19(15), pp. 4193-4198 (1991)
	Lundberg, K.S., Shoemaker, D.D., Adams, M.W., Short, J.M., Sorge, J.A., and Mathur, E.J., "High-fidelity Amplification Using a Thermostable DNA Polymerase Isolated From Pyrococcus Furiosus," Gene 108(1), pp. 1-6 (1991)
	Barnes, W.M., "The Fidelity of Taq Polymerase Catalyzing PCR is Improved by an N-terminal Deletion," Gene 112(1), pp. 29-35 (1992)
	Matilla, P., Korpela, J., Tenkanen, T., and Pitkanen, K., "Fidelity of DNA Synthesis by the Thermococcus Litoralis DNA Polymerase--An Extremely Heat Stable Enzyme with Proofreading Activity," Nucleic Acids Res. 19(18), pp. 4967-4973 (1991)
	Morrical, S., et al, "Amplification of Snap-back DNA Synthesis Reactions by the uvsX Recombinase of Bacteriophage T4," Journal of Biological Chemistry, 266(21) 14031-14038 (1991)
	Morrical, S.W. et al., "The UvsY Protein of Bacteriophage T4 Modulates Recombination-dependent DNA synthesis in Vitro," J. Biol. Chem., vol. 265, pp. 15096-15103 (1990).
	Salinas, F. et al., "Characterization of bacteriophage T4-coordinated leading- and lagging -strand synthesis on a minicircle substrate," PNAS, vol. 97, pp. 7196-7201 (June 2000).
	Cha, Tai-An et al., "The Bacteriophage T4 DNA Replication Fork," J. Biol. Chem., vol. 264, No. 21, pp. 12220-12225 (1998).
	Eggleston, AK, et al., "An overview of homologous pairing and DNA strand exchange proteins," Biochimie, vol. 73, pp. 163-176 (1991).
	"Summary Table," Trends in Biochemical Sciences," vol. 25, p. 206 (April 2000).

EXAMINER	DATE CONSIDERED
----------	-----------------

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.